Utah Division of Solid and Hazardous Waste P2 Newsletter

September 2005

This issue of the P2 Newsletter includes recent news in the pollution prevention sector as well as an expanded coverage of enforcement issues that have come to light since the last newsletter. The purpose of the P2 Newsletter is to present useful information on pollution prevention. The information includes significant articles from pollution prevention journals, new developments in P2, P2 activities in other states, P2 information of interest on the Internet, P2 meetings, recent P2 legislation and other P2 topics of interest. Detailed information regarding the location of the materials contained in the Newsletter has also been included.

New DSHW P2 Fact Sheets

In addition to the five new P2 fact sheets listed in the last P2 newsletter, there are four new fact sheets. Three of the new fact sheets are in Spanish dealing with the dry cleaning industry and one is in English dealing with antifreeze. All of them are now available to hand out to industry.

These fact sheets focus on P2 information associated with these industries and materials. The fact sheets also address recycling opportunities as well as the proper handling, disposition and disposal of wastes, which cannot be reused or recycled. The recent emphasis on fact sheets in Spanish is a consequence of the lack of these fact sheets for the growing Hispanic workforce. Little if any Spanish-language material exists for other industries such as the dry cleaning industry as well as many others industries. In addition to the Division's fact sheets, other organizations are making available industry fact sheets in Spanish, one of which is the National Automotive Environmental Compliance Assistance Center.

Other New EPA P2 Fact Sheet and Information Resources

Compliance Assistance Centers.

The U.S. Environmental Protection Agency, in partnership with industry, academic institutions, environmental groups, other federal and state agencies and local governments, has established ten sector-specific **Compliance Assistance Centers**. The Centers provide a comprehensive, easy-to-understand compliance information targeted specifically to each sector's needs. The ten centers encompass the following industry/government sectors: Agriculture; Automotive

Recycling Compliance; Automotive Service and Repair; Chemical Manufacturing; the Construction Industry; Federal Facilities; Local Government; Metal Finishing; Paints and Coatings; Printed Wiring Boards; Printing; Transportation; and U.S./Mexican Border Compliance. Also, the center offers a "recent news" section for each sector as well as "center results" which provides Center program background and results. For example, the following topics are discussed for each sector:

- How is Center Satisfaction and Use Assessed?
- Is Center Use Growing?
- Are Center Users Satisfied?
- How Is Center Information Being Used?
- What Are The Benefits Of These Actions?

PBT Program & Hospitals for a Healthy Environment (H2E).

In the last newsletter the PBT program, now referred to as the "EPA Priority Chemicals list" was covered at length and in this issue a new program, "Hospitals for a Healthy Environment (H2E) is broadly outlined. The primary goal of the H2E effort is to educate health care professionals about pollution prevention opportunities in hospitals and health care systems. Through activities, such as the development of best practices, model plans for total waste management, resource directories, and case studies, the project hopes to provide hospitals and health care systems with enhanced tools for minimizing the volumes of waste generated and the use of persistent, priority chemicals are commonly found in most hospital environments. Such reductions, such as mercury, are beneficial to the environment and health of our communities. The elimination of mercury containing waste requires significant knowledge of the element. This information can be found at the mercury site, http://www.epa.gov/mercury/index.htm, which provides a broad range of information: actions by EPA and others, including international actions; effects on people and the environment; and how to protect you and your family.

Basic Information found at this site include**:**

- Forms of mercury
- Sources of mercury
- Exposure to mercury
- Health effects of mercury
- Ecological effects of mercury
- Reducing mercury releases

News and Notes

Pollution Prevention Electronic Newsletter (New).

The US EPA's Pollution Prevention Program created this electronic newsletter to keep you informed about pollution prevention activities at the Agency. As a subscriber, you are among hundreds of people across the country, including federal, state, and local government, small business, industry, public interest organizations, and more who want to stay in touch with P2 at EPA. To subscribe, just send an e-mail to join-p2news2@lists.epa.gov with the following message in the body: **subscribe P2NEWS2 Your First Name Your Last Name** and you will get monthly updates on how the Agency is working to promote pollution prevention through...Business Practices and Processes, Web tools, Design for the Environment and Green Chemistry, EPA Regional and State P2 Activities, Environmentally Preferable Purchasing, P2 Information Resources, State and Local P2 Grants, and More!

Pollution Prevention Information Clearinghouse (PPIC).

The Pollution Prevention Information Clearinghouse (PPIC) is a free service of the US EPA dedicated to reducing or eliminating industrial pollutants in the environment. PPIC provides copies of EPA pollution prevention publications and supports clients in accessing Internet-based P2 resources The Pollution Prevention Information Clearinghouse (PPIC) is a free service of the US EPA dedicated to reducing or eliminating industrial pollutants in the environment. PPIC provides copies of EPA pollution prevention publications and supports clients in accessing Internet-based P2 resources.

The PPIC homepage http://www.epa.gov/opptintr/library/ppicindex.htm will link users to the PPIC Resource List, which provides info on PPIC's publications including fact sheets, web resources, and links to P2-related conferences.

New National Program to Reduce 31 Priority Chemicals.

EPA's National Partnership for Environmental Priorities (NPEP) focuses efforts on reducing 31 Priority Chemicals (PC s) found in our nation's products and wastes by finding solutions that eliminate or substantially reduce the use of PC’s in production or on recovering or recycling these chemicals where they cannot easily be eliminated or reduced at the source. These 31 Priority Chemicals, discussed below, are listed in the following table:

Priority Chemicals	
Chemical Name & Summary Fact Sheet	CASRN*
Organic Chemicals and Chemical Compounds	
1,2,4-Trichlorobenzene [PDF file, 9 KB]	120-82-1
1,2,4,5-Tetrachlorobenzene [PDF file, 9 KB]	95-94-3
2,4,5-Trichlorophenol [PDF file, 8 KB]	95-95-4
4-Bromophenyl phenyl ether [PDF file, 6 KB]	101-55-3
Acenaphthene [PDF file, 11 KB]	83-32-9
Acenaphthylene [PDF file, 10 KB]	208-96-8
Anthracene [PDF file, 11 KB]	120-12-7

Benzo(g,h,i)perylene [PDF file, 11 KB]	191-24-2
Dibenzofuran [PDF file, 8 KB]	132-64-9
Dioxins/Furans [PDF file, 10 KB] (considered one chemical on this list)	1746-01-6
Endosulfan, alpha [PDF file, 11 KB] & Endosulfan, beta [PDF file, 10 KB] (considered one chemical on this list)	959-98-8 33213-65-9
Fluorene [PDF file, 12 KB]	86-73-7
Heptachlor [PDF file, 11 KB] & Heptachlor epoxide [PDF file, 11 KB] (considered one chemical on this list)	76-44-8 1024-57-3
Hexachlorobenzene [PDF file, 10 KB]	118-74-1
Hexachlorobutadiene [PDF file, 9 KB]	87-68-3
Hexachlorocyclohexane, gamma- [PDF file, 11 KB]	58-89-9
Hexachloroethane [PDF file, 10 KB]	67-72-1
Methoxychlor [PDF file, 10 KB]	72-43-5
Naphthalene [PDF file, 10 KB]	91-20-3
PAH Group (as defined in TRI) [PDF file, 12 KB]	
Pendimethalin [PDF file, 9 KB]	40487-42-1
Pentachlorobenzene [PDF file, 9 KB]	608-93-5
Pentachloronitrobenzene [PDF file, 9 KB]	82-68-8
Pentachlorophenol [PDF file, 10 KB]	87-86-5
Phenanthrene [PDF file, 10 KB]	85-01-8
Polychlorinated Biphenyls (PCBs) [PDF file, 105 KB]	1336-36-3
Pyrene [PDF file, 10 KB]	129-00-0
Trifluralin [PDF file, 9 KB]	1582-09-8
Metals and Metal Compunds	
Cadmium [PDF file,11 KB]	7440-43-9
Lead [PDF file, 10 KB]	7439-92-1
Mercury [PDF file, 12 KB]	7439-97-6

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* Chemical Abstract Services Registry Number (CASRN).

More on Priority Chemicals.

This list of 31 Priority Chemicals replaces the list of 53 chemicals EPA identified in its 1998 Federal Register "Notice of Availability: Draft RCRA Waste Minimization Persistent, Bioaccumulative and Toxic (PBT) Chemical List" [Federal Register: November 9, 1998. Volume 63, Number 216. Page 60332-60343. Twenty-six of the chemicals in the current list were part of the draft list and four chemicals were added in response to comments and new information EPA received from the public regarding EPA's methodology for selecting the chemicals in the draft list. Polychlorinated biphenyls (PCBs) were added in 2004 because of their chemical properties. The list of PCs includes twenty-eight organic chemicals and three metals and their compounds.

Twenty-eight organic chemicals are included in the list.

The first 28 chemicals listed in the table are organic chemicals. These organic chemicals are included in the list of PCs and were selected following an Agency-wide expert review of scientific information available on them. EPA experts reviewed scientific information made available to the public in 1998 and scientific information received from commenters in response to the 1998 Notice of Availability. Based on its review, EPA concluded that 27 organic chemicals are persistent, bioaccumulative, and toxic (PBT). They are currently being generated in industrial waste and are found in soil, sediment, ground water, surface water, air, and plant, animal, and human tissue as a result of past and present releases. Even when released in very small amounts, they accumulate and can cause environmental problems. Many of these organics are difficult to clean up once they get into the environment, resulting in costly clean up efforts.

Three metals are included in the list.

The PC list includes cadmium, lead, and mercury. These metals and their compounds are known to occur frequently in RCRA regulated industrial wastes and often trigger RCRA's Toxicity Characteristic criteria, meaning the waste streams they are found in must be managed under RCRA hazardous waste regulations. These metals are also a high priority in international waste minimization efforts to which the United States has commitments.

In its 1998 Notice, EPA identified these metals as Priority Chemicals using the same PBT analysis framework that it used for organic chemicals. EPA subsequently decided to defer the use of that framework and is working with its Science Advisory Board to develop a consistent, Agency-wide approach for the evaluation of metals. Nevertheless, EPA believes other information clearly demonstrates that these three metals should be included in the list of 31 PCs. EPA's 2001 Biennial Report System (BR) data show that lead is the hazardous constituent found most frequently in RCRA waste streams. Cadmium is frequently found in wastes containing lead and both of these metals are frequently recoverable. Mercury is also frequently found in hazardous waste and there is a high level of national and international concern over mercury risks.

Sources and quantities of hazardous waste containing Priority Chemicals.

EPA's ***Priority Chemicals Trends Report*** describes changes in the quantities of PCs contained in hazardous waste generated by certain industrial sectors between 1998 and 2001. The Trends Report shows that in 2001 over 40 million pounds of organic PCs were contained in RCRA hazardous waste generated by companies reporting to the EPA's Toxics Release Inventory. Although this represents an increase of about 14 percent above the over 35 million pounds of organic PCs in hazardous waste generated in 1998, much of this increased quantity can be attributed to reduced TRI reporting thresholds that became effective for several of these chemicals in 2000. In the analysis presented in the Trends Report, the quantities reported by additional facilities reporting these PCs due to the reduced TRI reporting threshold are not included. For the years 1991 through 2001, the Trend Report analysis indicates a 57 percent reduction of the organic PCs. For the period 1998-2001, approximately 30 million pounds per year of the three metals (and their compounds) were estimated to be contained in hazardous

wastes even with reduced TRI reporting thresholds for mercury/ mercury compounds and lead/lead compounds that became effective in 2000 and 2001, respectively. Again, in the analysis, for which quantities of PCs generated by a core set of facilities from 1991-2001 are tracked, there was actually a decrease of over 50 percent of the quantity of the three metals and their compounds.

Other Waste Minimization Projects

Lead tire weights.

Lead tire weights are clipped to the wheel rims of every automobile in the United States in order to balance the tires. These weights often come loose and fall off. They are either washed into storm sewers and end up in waterways or are gathered during street cleaning and placed in municipal landfills. The weights are susceptible to atmospheric corrosion. When placed in acidic conditions, such as those that may exist in municipal landfills, the lead may be solubolized and can potentially contaminate ground water.

As an opportunity to exercise P2 principles, the solution to this problem is to provide safe alternatives for lead in tire weights. Some currently available alternatives are tin, tungsten, and ZAMA (an alloy of zinc, aluminum and copper). The National Waste Minimization Program is developing a voluntary program that will work with wheel weight manufacturers on potential lead substitutes, coordinate with organizations already engaged in this effort, and involve other stakeholders (retailers, automobile manufacturers, and trade associations), in order to reduce the potential impact of lead tire weights on human health and the environment.

Lead is a highly toxic chemical that has been designated as one of 31 Priority Chemicals targeted for reduction by EPA. Lead is a documented contaminant of air, land, water, plants and animals and exposure to lead can cause serious health problems.

Lead Tire Weight Quick Facts (http://www.ccar-greenlink.org/)

- There are 200 million autos and light trucks on the nation's roadways.
- Sixteen million new autos are produced annually in the United States.
- An average of 4.5 ounces of lead is clipped to the wheel rims of every automobile in the United States.
- One estimate suggest that 13 percent of tire weights fall off at some point during the lifetime of the tire.
- Approximately 70,000 tons of lead are used annually to produce tire weights worldwide.
- A European Union directive prohibits the use of lead tire weights after July 1, 2005.

Pumped Up About Biodiesel.

Biodiesel is all around us -- in our ferries, buses, garbage trucks, passenger cars, tractors, Army trucks, sailboats and more -- yet surveys show that only one in four people knows about this alternative, non-toxic fuel made from vegetable oil. But biodiesel is poised for liftoff, and more people are discovering its benefits. The fuel runs in diesel engines but emits 78 percent less carbon dioxide, nearly 50 percent fewer particulates and 80 percent to 90 percent less of compounds linked to cancer than diesel, and fewer greenhouse gases than gasoline. (Engines using it do emit more nitrogen oxide, a smog-forming component.)
Website: seattlepi.nwsource.com/local/212618_biodiesel18.html.

Compliance and Enforcement News

Corrective Action Smart Enforcement Strategy (CASES) is announced.

EPA launched an enforcement strategy to better control human exposure at or near hazardous waste facilities. The Corrective Action Smart Enforcement Strategy (CASES) is an effort to get hazardous waste facilities to address contamination that is potentially harmful to human health. Subtitle C of RCRA requires parties who seek a permit to treat, store or dispose of hazardous waste to clean up environmental contaminants at their facilities regardless of the time of the release. Corrective action at these types of facilities may be accomplished through the permitting and enforcement mechanisms found in RCRA, through state programs, or through voluntary agreements. See the compliance website at: http://www.epa.gov/compliance/cleanup/rcra/cases.html.

Enforcement Alerts

”Enforcement Alerts” inform the public and those regulated by environmental laws about important environmental enforcement issues, recent trends, and significant enforcement actions. The information they contain should help the regulated community comply with environmental laws and applicable regulations. These alerts can be found at the following web site**:**
http://www.epa.gov/Compliance/resources/newsletters/civil/enfalert/index.html .